

4.2.4 Cultural Resources

4.2.4.1 Historic Architecture

Providing a four-lane connection between Jacksonville and New Bern is expected to increase the intensity of development throughout the study area corridor. New development is likely to be primarily residential, with some highway-oriented commercial developments. Cumulatively, area development may lead to changes in noise levels or viewsheds for historic architectural resources. Interviews with local residents in 2002 suggest many community members have resided in the area for generations and cherish their cultural heritage, tying them to the area's history.

4.2.4.2 Archaeological Resources

The US 17 project will result in an adverse effect on Site 31JN128** , a historic archaeological site recommended as eligible for the NRHP per Criterion D for its potential to yield significant information pertaining to Middling Planters and Farm Sites for Jones County during the Federal and Antebellum periods, especially related to site structure and floodways. NCDOT and the State Historic Preservation Office concurred with this determination. Site 31JN128** is partially located within the project corridor. However, it is recommended that the entire site be avoided by construction activities or be subjected to data recovery efforts prior to construction.

4.2.5 Natural Environment

4.2.5.1 Biotic Community and Wildlife

As noted in the NCDOT's 2001 *Guidance for Assessing Indirect and Cumulative Impacts for Transportation Projects in North Carolina*, transportation projects can alter the behavior and functioning of the natural environment. Indirect and cumulative effects of actions can have important consequences for ecological systems, including:

- Habitat fragmentation from physical alteration of the environment
- Lethal, sublethal, and reproduction effects from pollution
- Degradation of habitat from pollution
- Disruption of ecosystem functioning from direct mortality effects
- Disruption of natural processes from altered energy flows.

Sections of the Detailed Study Alternatives on new alignment pass through forested portions of the study area. This will result in minor losses of habitat and additional fragmentation of